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Claims

10 1. A coil system, adapted more especially for an electrodynamic direct linear drive, comprising a coil arrangement, which bears a plurality of individual coils arranged coaxially in sequence, a board strip extending along the coil arrangement, such board strip having an electrical circuit with predetermined contact making points, with which the wire ends of each individual coil is electrically contacted with a simultaneous mechanical attachment on the board strip.

20 2. The coil system as set forth in claim 1, wherein the board strip is rigid or at least partly flexible in structure.

25 3. The coil system as set forth in claim 1, wherein the board strip possesses contact making holes arranged in sequence in the longitudinal direction of the board strip, which are placed in circuit by printed wiring on the board strip in accordance with a predetermined circuit pattern and into which the wire ends of the individual coils are inserted and are soldered to the electrical circuit.

30 4. The coil system as set forth in claim 1, wherein the circuit is so constituted that the individual coils are connected together in a plurality of coil groups.

5. The coil system as set forth in claim 1, wherein

the board strip lies against an outer periphery of the coil arrangement.

6. The coil system as set forth in claim 1,
5 comprising a magnetic return part coaxial to the coil arrangement which possesses a longitudinally extending recess in which the board strip extends.

7. The coil system as set forth in claim 6, wheren
10 the magnetic return part is a tubular body surrounding the coil arrangement, such body being longitudinally slotted to form the recess.

8. The coil system as set forth in claim 6, wherein
15 the intermediate spaces between the magnetic return part, the individual coils and the board strip are filled with a potting composition.

9. The coil system as set forth in claim 1, wherein
20 the individual coils are coils with bonding enamel.

10. The coil system as set forth in claim 1, wherein
the individual coils are centered on an electrically non-conductive tube extending through the coil arrangement.

25 11. The coil system as set forth in claim 1, wherein
the individual coils are identical with each other.

30 12. The coil system as set forth in claim 1, wherein
axially adjacent individual coils at least in part touch one another.

35 13. A method for the manufacture of a coil system,
more especially for an electrodynamic direct linear drive,
which comprises a coil arrangement having a plurality of

coaxially sequentially arranged individual coils, and
prefabricated individual coils are so secured in position
with their wire ends with the simultaneous making of
contact on a board strip bearing an electrical circuit
that the board strip extends along the coil arrangement.

14. An electrodynamic direct linear drive comprising
a first component in the form of a stator and a second
component in the form of an output drive part able to be
moved linearly in relation to the stator, one of the
components being fitted with a coil system designed as set
forth in claim 1 and the other component being fitted with
a magnet system comprises one or more axially sequentially
placed permanent magnets.

15. An electrodynamic direct linear drive comprising
a first component in the form of a stator and a second
component in the form of an output drive part able to be
moved linearly in relation to the stator, one of the
components being fitted with a coil system produced as set
forth in claim 13 and the other component being fitted
with a magnet system comprises one or more axially
sequentially placed permanent magnets.

25. An electrodynamic direct linear drive as set
forth in claim 14, wherein the magnet system and the coil
system are placed coaxially one within the other.